

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) ~~Non-competitive~~ A non-competitive immunoassay for a small analyte, comprising:

reacting a sample containing said analyte with a reagent pair comprising a first binding partner that binds to said analyte, and a second binding partner that binds to the complex of said analyte and said first binding partner, wherein said second binding partner is obtained from a naive display recombinant binding partner library by selecting a binding partner that binds to said complex of the analyte and first binding partner, and determining the binding of the second binding partner, thus indicating the presence of the analyte in the sample.

2. (original) The assay of claim 1, wherein the first and second binding partners are selected from antibody fragments Fab and scFv.

3. (previously presented) The assay of claim 1, which assay is a homogeneous assay.

4. (original) The assay of claim 3, which assay is based on fluorescence resonance energy transfer (FRET).

5. (previously presented) The assay of claim 1, wherein the analyte is a drug of abuse.

6. (original) The assay of claim 5, wherein the analyte is morphine, tetrahydrocannabinol (THC) or amphetamine.

7. (original) Reagent pair for a non-competitive immunoassay for a small analyte, comprising a first binding partner that binds to said analyte, and a second binding partner that binds to the complex of said analyte and said first binding partner, wherein said second binding partner is obtained from a display recombinant binding partner library by selecting a binding partner that binds to said complex of the analyte and first binding partner.

8. (original) Test kit for a non-competitive immunoassay for a small analyte, said kit comprising a reagent pair comprising a first binding partner that binds to said analyte, and a second binding partner that binds to the complex of said analyte and said first binding partner, wherein said second binding partner is obtained from a display recombinant

binding partner library by selecting a binding partner that binds to said complex of the analyte and first binding partner.

9. (original) The test kit of claim 8, wherein the first and second binding partners are selected from antibody fragments Fab and scFv.

10. (previously presented) The test kit of claim 8, comprising reagents for a homogeneous assay.

11. (original) The test kit of claim 10, comprising reagents for a fluorescence resonance energy transfer (FRET) based assay.

12. (currently amended) The test kit of claim 8, comprising reagents for ~~as-saying~~ assaying a drug of abuse.

13. (currently amended) The test kit of claim 12, comprising multiple reagent pairs for ~~as-saying~~ assaying multiple drugs of abuse.

14. (previously presented) The test kit of claim 8, comprising reagents for assaying morphine, tetrahydrocannabinol (THC) or amphetamine.

15. (original) The test kit of claim 14, comprising one or more reagents from the group consisting of the ligand-binding portion of M1 Fab comprising SEQ ID NO 1 and SEQ ID NO 2; M2 Fab comprising SEQ ID NO 3 and SEQ ID NO 4; and K11 scFv comprising SEQ ID NO 5.

16. (original) The test kit of claim 15, wherein said ligand binding portion is formed by amino acids no. 3 to 108 of SEQ ID NO 1 and amino acids no. 4 to 123 of SEQ ID NO 2; or of amino acids no. 3 to 108 of SEQ ID NO 3 and of amino acids no. 4 to 123 of SEQ ID NO 4; or of amino acids no. 3 to 120 and no. 140 to 246 of SEQ ID NO 5.

17. (currently amended) A reagent pair comprising a first binding partner that binds to ~~an~~an ~~analyte~~ analyte, and a second binding partner that binds to the complex of said analyte and said first binding partner, in a non-competitive immunoassay for a small analyte, whereby the second binding partner is obtained from a display recombinant binding partner library by selecting a binding partner that binds to said complex of the analyte and first binding partner.

18. (currently amended) ~~Process~~ A process for preparing a reagent pair for a non-competitive immunoassay for a small analyte, comprising:

providing a first binding partner that binds to said analyte, and a second binding partner that binds to the complex of said analyte and said first binding partner, wherein said second binding partner is obtained from a naive display recombinant binding partner library by selecting a binding partner that binds to said complex of the analyte and first binding partner.

19. (original) The process of claim 18, wherein recombinant antibody fragments are prepared from a phage display library.

20. (previously presented) The process of claim 18, wherein the first binding partner is also obtained from a display recombinant binding partner library.

21. (original) Recombinant binding protein, comprising the ligand-binding portion of M1 Fab comprising SEQ ID NO 1 and SEQ ID NO 2; M2 Fab comprising SEQ ID NO 3 and SEQ ID NO 4; or K11 scFv comprising SEQ ID NO 5.

22. (original) The recombinant binding protein of claim 21, wherein said ligand binding portion of said protein is formed by amino acids no. 3 to 108 of SEQ ID NO 1 and amino acids no. 4 to 123 of SEQ ID NO 2; or of amino acids no. 3 to 108 of SEQ ID

NO 3 and of amino acids no. 4 to 123 of SEQ ID NO 4; or of amino acids no. 3 to 120 and no. 140 to 246 of SEQ ID NO 5.

23. (original) The recombinant binding protein of claim 21, which protein has the amino acid sequence SEQ ID NO 1 and SEQ ID NO 2 ; SEQ ID NO 3 and SEQ ID NO 4; or SEQ ID NO 5.

24. (previously presented) DNA, which encodes a recombinant binding protein of claim 21.

25. (previously presented) Host cell, which expresses a recombinant binding protein of claim 21.

26. (new) The assay of claim 1, wherein the second binding partner comprises a ligand binding portion of K11 scFv comprising SEQ ID NO 5.

27. (new) The assay of claim 1, wherein the first binding partner comprises a ligand-binding portion of M1 Fab comprising SEQ ID NO 1 and SEQ ID NO 2, or of M2 Fab comprising SEQ ID NO 3 and SEQ ID NO 4.

28. (new) The assay of claim 26, wherein the first binding partner comprises a ligand-binding portion of M1 Fab

comprising SEQ ID NO 1 and SEQ ID NO 2, or of M2 Fab comprising SEQ ID NO 3 and SEQ ID NO 4.

29. (new) The assay of claim 26, wherein said ligand-binding portion of the second binding partner is formed by amino acids no. 3 to 120 and no. 140 to 246 of SEQ ID NO 5.

30. (new) The assay of claim 27, wherein said ligand-binding portion of the first binding partner is formed by amino acids no. 3 to 108 of SEQ ID NO 1 and amino acids no. 4 to 123 of SEQ ID NO 2; or of amino acids no. 3 to 108 of SEQ ID NO 3 and of amino acids no. 4 to 123 of SEQ ID NO 4.

31. (new) The assay of claim 28, wherein said ligand-binding portion of the first binding partner is formed by amino acids no. 3 to 108 of SEQ ID NO 1 and amino acids no. 4 to 123 of SEQ ID NO 2; or of amino acids no. 3 to 108 of SEQ ID NO 3 and of amino acids no. 4 to 123 of SEQ ID NO 4.

32. (new) The assay of claim 5, wherein multiple drugs of abuse are assayed.

33. (new) The process of claim 18, wherein the first binding partner is used as contraselection to select a second

binding partner that recognizes immune complexes but not free  
binding partner nor free analyte.